

	L #	Hits	Search Text	DBs	Time Stamp
1	L2	314726	(ph or salt) same (alkal\$2 adj earth or zirconium or calcium or cadmium or copper or iron or magnesium or nickel or zinc or aluminum)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:25
2	L3	116935	inkjet or ink adj jet	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 06:28
3	L5	3046	2 and 3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 06:28
4	L6	1032	5 and ink.ti.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 06:28
5	L7	1157	((523/160) or (523/161)).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 06:29
6	L8	97	5 and 7	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 06:29
7	L9	321308	(zirconium or calcium or cadmium or copper or iron or magnesium or nickel or zinc or aluminum) adj (carbonate or sulfate or phosphate or chloride or oxalate or phosphatae or chloride)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:39
8	L10	3742	3 and 9	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 06:46
9	L11	2512	10 and pigment	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 06:39

	L #	Hits	Search Text	DBs	Time Stamp
10	L12	960	11 and ink.ti.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:22
11	L13	82	7 and 11	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 06:37
12	L14	51189	9 near10 (ph or salt)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 06:39
13	L15	474	3 and 14	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 06:39
14	L16	329	15 and pigment	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 06:50
15	L17	311	3 and 9	EPO; DERWENT	2003/05/01 06:46
16	L20	75353	zinc adj (carbonate or sulfate or phosphate or chloride or oxalate or phosphat <sup>e</sup> or chloride) or (ph or salt) near10 zinc	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 06:50
17	L21	1	3 and 18	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 06:50
18	L22	3640	3 and zinc	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 06:50
19	L23	904	3 and 20	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 06:50

	L #	Hits	Search Text	DBs	Time Stamp
20	L24	733	23 and pigment	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:29
21	L25	81	3 and 7 and pigment and zinc	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:14
22	L26	419	(106/31.6).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:02
23	L27	50	3 and 26 and pigment and zinc	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:04
24	L28	1849	3 and zinc adj oxide	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:04
25	L29	1791	22 not 28	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:04
26	L30	170	(salt or cation) near10 zn\$2 and 3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:13
27	L32	1338	(salt or ph or electrolyte or conductivity) same (zn\$2 or zinc) and 3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:22
28	L33	1009	32 and pigment	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:14
29	L34	225	33 and 3.ti.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:20

	L #	Hits	Search Text	DBs	Time Stamp
30	L35	2	("5997623").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:20
31	L36	1	35 and salt	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:20
32	L37	222	(electrolyte or conductivity) same (zn\$2 or zinc) and 3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:22
33	L38	40	37 and ink.ti.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:24
34	L39	257	3 and zinc.ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:24
35	L40	131	3 and (zinc adj oxide).ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:24
36	L41	126	39 not 40	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:25
37	L42	21468 1	(ph or salt) near10 (alkal\$2 adj earth or zirconium or calcium or cadmium or copper or iron or magnesium or nickel or zinc or aluminum)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:26
38	L43	2022	3 and 42	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:28

	L #	Hits	Search Text	DBs	Time Stamp
39	L45	530	3.ti. and 42	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:28
40	L44	188	3 and 42.ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:28
41	L46	381	45 and pigment	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:37
42	L47	64	42 and 3 and 7	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:37
43	L48	58	47 and pigment	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:39
44	L49	191	9 and 7	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:39
45	L50	174	49 and pigment	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/01 07:39

	L #	Hits	Search Text	DBs	Time Stamp
1	L1	18238	pigment near5 (modified or modify\$3 or attach\$4 or bond\$3 or treat\$4 or hydrophilic or self adj dispers\$3 or anionic or cationic)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 08:21
2	L2	347190	salt near10 (zirconium or calcium or cadmium or copper or iron or magnesium or nickel or zinc or aluminum or carboxylate or oxalate or phosphate or carbonate) or salt near5 (multivalent or polyvalent or multi adj valent) or zncl! or nacl!	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 08:18
3	L3	1585	1 and 2 and ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 09:24
4	L5	5512	(carbon adj black) near5 (modified or modify\$3 or attach\$4 or bond\$3 or treat\$4 or hydrophilic or self adj dispers\$3 or anionic or cationic)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 08:22
5	L6	535	5 and 2 and ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 08:22
6	L4	89	1 and 2 and (nonaqueous or non adj aqueous or solvent adj based) near5 ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 10:40
7	L7	167750	styrene near5 (acrylate or acrylic or methacrylic or methacrylate or maleic) or (polymer or resin) near5 emulsion or (anionic or cationic) near5 (polymer or resin)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 10:42
8	L8	899	3 and 7	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 08:35

	L #	Hits	Search Text	DBs	Time Stamp
9	L10	714	8 not 9	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 08:35
10	L9	401	6 and 7	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 09:07
11	L11	186	10 and ink.ti.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 09:08
12	L12	4	((("6538047") or ("3494943"))).PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 09:22
13	L13	1	2 and 12	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 09:22
14	L14	2	("6494943").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 09:22
15	L15	1	2 and 14	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 09:23
16	L16	9	1 and zinc adj chloride and (nonaqueous or non adj aqueous or solvent adj based) near5 ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 09:24
17	L17	282	(1 or 5) and zinc adj chloride and 2	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 09:25
18	L18	111	17 and ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 09:25

	L #	Hits	Search Text	DBs	Time Stamp
19	L19	379	(1 or 5) and zinc adj chloride	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 09:25
20	L20	150	19 and ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 09:27
21	L22	4	((("5198023") or ("5488402"))).PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 09:27
22	L23	2	wo-9618695-\$.did.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 10:15
23	L24	2	("5571311").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 10:15
24	L25	1	24 and 2	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 10:15
25	L26	1	24 and salt	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 10:40
26	L27	361	2 and (nonaqueous or non adj aqueous or solvent adj based) near5 ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 10:41
27	L28	296	1 and (nonaqueous or non adj aqueous or solvent adj based) near5 ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 11:04
28	L30	138	28 and ink.ti.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 10:42



	L #	Hits	Search Text	DBs	Time Stamp
29	L29	147	27 and ink.ti.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 10:43
30	L31	321	7 and (27 or 28)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 11:05
31	L32	134	31 and ink.ti.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 10:59
32	L33	5	(( "6506245" ) or ( "6494943" ) ).PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 10:59
33	L34	4	33 and ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 10:59
34	L35	2	33 and (nonaqueous or non adj aqueous or solvent adj based) near5 ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 11:01
35	L36	38	cabot.asn. and (nonaqueous or non adj aqueous or solvent adj based) near5 ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 11:02
36	L37	15	36 and 7	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 11:02
37	L38	65	5 and (nonaqueous or non adj aqueous or solvent adj based) near5 ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 11:05
38	L39	37	7 and 38	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 11:07

	L #	Hits	Search Text	DBs	Time Stamp
39	L40	9886	coordinat\$4 near5 (polyvalent or ion or cation or anion or salt)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 11:11
40	L41	523	40 and ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 11:13
41	L42	82	40 and ink.ti.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 11:09
42	L43	17	pigment near10 coordinat\$4 near5 (polyvalent or ion or cation or anion or salt)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 11:12
43	L44	166	functional near3 group near10 coordinat\$4 near5 (polyvalent or ion or cation or anion or salt)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 11:13
44	L45	13	44 and ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/30 11:13

	L #	Hits	Search Text	DBs	Time Stamp
1	L1	343229	ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 13:51
2	L2	18238	pigment near5 (modified or modify\$3 or attach\$4 or bond\$3 or treat\$4 or hydrophilic or self adj dispers\$3 or anionic or cationic)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 13:52
3	L3	322071	(zirconium or calcium or cadmium or copper or iron or magnesium or nickel or zinc or aluminum) adj (carbonate or sulfate or oxalate or citrate or tartrate or phosphate or chloride)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 13:54
4	L4	15754	(polyvalent or multivalent) near5 (salt or cation or anion)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 13:54
5	L5	549	(inkjet or ink near3 jet) and 2 and 3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 15:08
6	L6	186	(inkjet or ink near3 jet) and 2 and 4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 13:55
7	L7	180	6 and (polymer or resin or styrene or acrylic or acrylate or polyacrylic or polymethacrylic or methacrylic)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 14:53
8	L8	3	ep-1122286-\$.did. or wo-200151566-\$.did.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 14:49
9	L9	6	(( "5853465" ) or ( "5630868" ) or ( "6235829" ) ).PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 14:50

	L #	Hits	Search Text	DBs	Time Stamp
10	L11	20999 46	zirconium or calcium or cadmium or copper or iron or magnesium or nickel or zinc or aluminum	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 14:51
11	L10	2	9 and salt	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 14:51
12	L12	2	9 and 11	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 14:53
13	L13	25	6 and (styrene or acrylic or acrylate or polyacrylic or polymethacrylic or methacrylic) same 11	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 14:55
14	L14	8973	1 and (styrene or acrylic or acrylate or polyacrylic or polymethacrylic or methacrylic) same 11	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 14:55
15	L15	2580	1 and (styrene or acrylic or acrylate or polyacrylic or polymethacrylic or methacrylic) same 3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 14:55
16	L16	91	ink near3 jet same (styrene or acrylic or acrylate or polyacrylic or polymethacrylic or methacrylic) same 3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 14:57
17	L17	1157	((523/160) or (523/161)).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 14:57
18	L18	153	17 and (styrene or acrylic or acrylate or polyacrylic or polymethacrylic or methacrylic) and 3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 15:02
19	L19	134	17 and (styrene or acrylic or acrylate or polyacrylic or polymethacrylic or methacrylic) and salt same 11	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 15:03

	L #	Hits	Search Text	DBs	Time Stamp
20	L20	66	19 not 18	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 15:03
21	L21	88	(inkjet or ink near3 jet) and 2 same 3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 15:08
22	L22	477	(inkjet or ink near3 jet) and 2	EPO; DERWENT	2003/04/29 15:08
23	L23	372	(inkjet or ink near3 jet).ti. and 2	EPO; DERWENT	2003/04/29 15:13
24	L24	68	22 and salt	EPO; DERWENT	2003/04/29 15:13
25	L25	3	("6153001").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 15:25
26	L26	1	25 and (3 or 11 or salt)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 15:25

	L #	Hits	Search Text	DBs	Time Stamp
1	L1	343050	ink	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 13:31
2	L2	23202	pigment near10 (modified or modify\$3 or attach\$4 or bond\$3 or treat\$4 or hydrophilic or self adj dispers\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 13:41
3	L3	501869	salt same (zirconium or calcium or cadmium or copper or iron or magnesium or nickel or zinc or aluminum or zn\$2 or ca\$2 or cu\$2 or fe\$2)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 14:28
4	L4	2684	1 and 2 and 3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 13:40
5	L5	822	4 and ink near3 jet	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 13:41
6	L6	16311	pigment near5 (modified or modify\$3 or attach\$4 or bond\$3 or treat\$4 or hydrophilic or self adj dispers\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 13:42
7	L7	699	(ink near3 jet or inkjet) and 3 and 6	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 13:44
8	L9	412	7 and ink.ti.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 13:43
9	L10	258164	salt same (zirconium or calcium or cadmium or copper or iron or magnesium or nickel or zinc or aluminum)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 13:45

	L #	Hits	Search Text	DBs	Time Stamp
10	L11	499	(ink near3 jet or inkjet) and 2 and 10	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 14:26
11	L12	494	11 and (polymer or resin or styrene or acrylate or polyacrylic or polymethacrylic or acrylic or methacrylic)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 13:50
12	L14	26392 3	(zirconium or calcium or cadmium or copper or iron or magnesium or nickel or zinc or aluminum) adj2 (carbonate or sulfate or oxalate or citrate or tartrate or phosphate)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 14:32
13	L15	510	(ink near3 jet or inkjet) and 2 and 14	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 14:30
14	L17	1420	(ink near3 jet or inkjet) and styrene adj2 (maleic or acrylate) and (salt or 14)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 14:46
15	L13	82	(ink near3 jet or inkjet) and 2 and polyvalent near5 salt	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 14:45
16	L16	42	(ink near3 jet or inkjet) and 2 and zinc adj chloride	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 14:41
17	L18	418	17 and 2	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 14:41
18	L19	217	18 not 12	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 14:41

	L #	Hits	Search Text	DBs	Time Stamp
19	L20	43	(ink near3 jet or inkjet) and 2 and multivalent near5 salt	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 14:47
20	L21	307	15 and styrene near5 (maleic or acrylate or acrylic)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 14:58
21	L22	1156	((523/160) or (523/161)).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 14:58
22	L23	240	2 and 22	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 14:58
23	L24	184	23 and (salt or 14)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 14:58



PAT-NO: JP02000345085A  
DOCUMENT-IDENTIFIER: JP 2000345085 A  
TITLE: AQUEOUS INK COMPOSITION  
PUBN-DATE: December 12, 2000

INVENTOR-INFORMATION:  
NAME COUNTRY  
ITO, HIROSHI N/A  
MOMOSE, MASAYUKI N/A

ASSIGNEE-INFORMATION:  
NAME COUNTRY  
SEIKO EPSON CORP N/A

APPL-NO: JP11162672  
APPL-DATE: June 9, 1999

INT-CL (IPC): C09D011/00, B41J002/01, B41M005/00, C09C001/56

ABSTRACT:

PROBLEM TO BE SOLVED: To obtain an aqueous ink composition in which the agglomeration of a pigment is prevented and which does not exhibit the decrease in density of printed letters by dispersing, in an aqueous medium, a surface-modified pigment dispersible and/or dissolvable in water in the absence of a dispersant and by adjusting the concentration of a free polyvalent cation in the ink to a specified value or lower.

SOLUTION: The concentration of the free polyvalent cation in the ink is adjusted to 100 ppm or lower. Calcium, magnesium, and iron ions, etc., are listed as the polyvalent cation. Preferable pigments to be surface-modified are carbon black and organic pigments. Especially preferably, the surface-modified pigment is prepared by oxidizing carbon black or an organic pigment with a halogenic acid compound (e.g. sodium or calcium hypochlorite). The cocentration of the free polyvalent cation in the ink can be decreased preferably by purifying a dispersion containing the surface-modified pigment oxidized and dispersed therein by reverse osmosis, ultrafiltration, electrodialysis, or the like and then preparing the ink.

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